

Claims.

1. A scanning system for constructing a three-dimensional model of an object, the scanning system comprising:

5 a scanning device having an emitter for projecting light and a sensor for capturing images, the emitter and the sensor being, in use, in a fixed position relative to each other;

10 a scanning template member having a known two-dimensional template; processing means to generate data to enable construction of a three-dimensional model of an object placed between the scanning device and the scanning template,

15 the processing means being arranged, when in use, to generate information about the object relative to the scanning template, this information being generated from the same image onto which the projected light is projected by the emitter.

2. A scanning system as claimed in claim 1 wherein the processing means is arranged to carry out the following steps on an image captured by the sensor:

20 to locate in the image at least one part of the scanning template,

to locate on the scanning template plane a line of light which is the intersection of a plane of light projected by the emitter and the scanning template plane; and

25 to move along the line of light and identify one or more disparities in the line of light.

3. A scanning system as claimed in claim 2 wherein multiple lines of light are used to accelerate the scanning process.

4. A scanning method for constructing a three-dimensional model of an object, the method comprising:

placing an object to be scanned between a scanning device and a scanning template having a known two-dimensional template;

5 scanning an object using a scanning device having an emitter for projecting light and a sensor for capturing images, the emitter and the sensor being, in use, in a fixed position relative to each other;

10 generating information about the object relative to the scanning template, this information being generated from the same image onto which the projected light is projected by the emitter, to generate data to enable construction of a three-dimensional model of the object.

5. A scanning method as claimed in claim 4 further comprising carrying out the following steps on an image captured by the sensor:

15 locating in the image at least one part of the scanning template,

locating on the scanning template a reference line of light projected by the emitter; and

moving along the line of light and identifying the disparities in the line of light.

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6. A scanning method as claimed in claim 5 wherein a multiplicity of lines of light are used.